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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/508,758	05/30/2000	ANDREW FREDERICK MYLES	SPR4388P0110US	8353

7590

05/26/2004

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EXAMINER
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HOANG, THAI D

ART UNIT	PAPER NUMBER
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2667

DATE MAILED: 05/26/2004

11

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/508,758

Applicant(s)

MYLES ET AL.

Examiner

Thai D Hoang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed on 02/18/2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16, 19-31, 33, 36-50, 58-72, 81-95 and 103-109 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 11-14, 16, 19-23, 28-31, 33, 36-42, 47-50, 58-64, 69-72, 81-87, 92-95 and 103-109 is/are rejected.
- 7) ☒ Claim(s) 7-10, 24-27, 43-46, 65-68 and 88-91 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 19 and 36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification does not disclose limitations recited in part (i) of the claims 19 and 36 for empty state. However, the specification only discloses these limitations for reserved state (ii) as recited in claims 1, 58, 81, 103 and 105-106. Claims 20-31, 33, 37-50, 60 and 107 are rejected because they are depended on rejected claims.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 2.1 Claims 1-6, 11, 13-14, 19-23, 28, 30-31, 36-42, 47, 49-50, 58-64, 69, 71-72, 81-87, 92 94-95 and 103-106 are rejected under 35 U.S.C. 103(a) as being unpatentable

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Regarding claims 1, 3, 19, 36, 39, 58, 61, 81, 84, 103-106, Mayrand discloses a method of communication channel selection in cellular radio communication systems. Mayrand teaches that the system comprises a Mobile Switching Center MSC (hub), which communicates with a plurality of base stations B1-B9 over a radio medium (fig. 1). In figures 3 and 6, Mayrand shows a procedure for allocating a communication channel, in which communication channel seizure requests are processed by the system following internal generation thereof by an MSC during its handling of traffic with a mobile station. At step 21 the MSC receives a request from the station, a voice channel is selected (reserved state) from a pool of available channels 24 (empty state), then the MSC assigns the selected channel for the station (owner-state); col. 6, lines 21-53; col. 8, lines 39-60 (each channel being varyingly in one of an empty-state, a reserved-state, or an owner-state). Furthermore, Mayrand teaches that the MSC allocates communication channel for each station based on a characteristic of the call requested. Each communication channel request is assigned to a communication channel group based upon the call type determination thereof. Mayrand does not teach that the method comprises the step of providing a channel to which a station having made a reservation with the hub, but not owning the channel, can have access if not being used by the owner and further to which the owner can resume access on demand, and the step of re-allocating the respective state and/or the number of channels over time on the basis of each station's data requirements. However, Enns discloses a system comprising a channel scheduler for assigning users to unoccupied channels. This means that the remote device is assigned to a dedicated channel if the

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remote device is not entitled to such service. As the need for dedicated channels arises for other devices that have reserved services, the scheduler may move a remote device which is not entitled to the dedicated service to a channel that is shared; col. 15, lines 12-19. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the channel allocation method disclosed by Enns into Mayrand's system in order to utilize the bandwidth on each channel of the system.

Regarding claims 2, 20, 38, 60 and 83, the communication in the system disclosed by Mayrand is over a radio medium that inherently has a limit bandwidth because every system has a specific maximum bandwidth value to transmit and receive communication signal.

Regarding claims 4, 40, 62 and 85, the stations in the system disclosed by Mayrand could request the MSC allocate one or more channels at any time when a request is received from one of a plurality of mobile stations.

Regarding claims 5-6, 21, 23, 41-42, 63-64 and 86-87, Mayrand discloses that the MSC allocates communication channels for each of the plurality of base stations based on the request and characteristic of the calls received from the base station and available channels for each call type in the pool of channel 24. Then, the MSC selects appropriate channels to reserve and assign for the base station corresponding with the call types. Therefore, it indicates that Mayrand's system comprising the step of the station negotiating with the hub to be allocated a required number of channels in the reserved and owner-state; figs. 3 and 6; abstract; col. 2, line 28 – col. 3, line 13; col. 5, line 61 – col. 6, line 33 (the method comprises the further step, as management traffic,

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of a station negotiating with the hub to be allocated a required number of channels in the owner-state and reserved state.)

Regarding claims 11, 28, 47, 69 and 92, Mayrand teaches that the MSC operates based on the characteristics received from the based stations. One of the characteristics is a terminating signal; col. 6, lines 62-64; col. 11, lines 25-27. Therefore, it indicates that the system comprises the step of a station requesting the hub to be deregistered to give-up allocated channels.

Regarding claims 13, 30, 49, 71 and 94, Mayrand does not teach that the method comprises the step of re-allocating channels. However, Enns discloses that the remote device is assigned to a dedicated channel if the remote device is not entitled to such service. As the need for dedicated channels arises for other devices that have reserved services, the scheduler may move a remote device which is not entitled to the dedicated service to a channel that is shared; col. 15, lines 12-19. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the dynamic channel allocation method disclosed by Enns into Mayrand's system in order to utilize the bandwidth on each channel of the system.

Regarding claims 14, 31, 50, 72 and 95, Mayrand does not teach that the method comprises the step of re-allocating channels. However, Enns discloses that the remote device is assigned to a dedicated channel if the remote device is not entitled to such service. As the need for dedicated channels arises for other devices that have reserved services, the scheduler may move a remote device which is not entitled to the dedicated service to a channel that is shared; col. 15, lines 12-19. It would have been obvious to

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one of ordinary skill in the art at the time the invention was made to apply the dynamic channel allocation method disclosed by Enns into Mayrand's system in order to utilize the bandwidth on each channel of the system.

Regarding claims 22, 37, 59 and 82, Mayrand discloses that the system is a wireless system; therefore, it implies that the communication is preformed over a radio medium; fig. 1.

2.2 Claims 12, 29, 48, 70 and 93 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mayrand et al, US patent No. 5,504,939 in view of Enns, US patent No. 6,658,010 B1, and further in view of Lindskog et al, US patent No. 6,363,267; hereafter referred to as Mayrand, Enns and Lindskog respectively.

Regarding claims 12, 29, 48, 70 and 93, both Mayrand and Enns do not disclose the system comprises the step of a station requesting the hub to delay any data communication to the station for a period of time to be in a sleep mode. However, Lindskog teaches that the mobile terminal can send a sleep request to an access point to delay transmission; col. 3, lines 61-66. It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the method disclosed by Lindskog into the system disclosed Mayrand and Enns in order to reserve the bandwidth for other station access to the system while waiting for the delayed data.

2.3 Claims 16, 33 and 107-109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mayrand et al, US patent No. 5,504,939 in view of Enns, US patent No. 6,658,010 B1, and further in view of Haartsen US 6,650,630 B1, hereafter referred to as Mayrand, Enns and Haartsen respectively.

Regarding claims 16, 33 and 107-109, both Mayrand and Enns do not disclose the system varies the number of time slots for each station's requirement. However, Haartsen discloses a method and system called resource management and traffic control in time-division-duplex communication systems. Haartsen teaches that the system dynamically allocates timeslots for users when traffic demand has been changed; col. 3, lines 44-60. It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the method disclosed by Haartsen into the system disclosed Mayrand in order to save the bandwidth of the system.

***Allowable Subject Matter***

3. Claims 7-10, 24-27, 43-46, 65-68 and 88-91 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

4. Applicant's arguments with respect to claims 1-109 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the



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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D Hoang whose telephone number is (703) 305-3232. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (703) 305-4378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thai Hoang

  
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*8/24/08*